OPERATION-INSTRUCTIONS

SLEE medical
an orgentec company

Bench top quickfreezing unit
MTR

CE

INS1100GB
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1. INTENDED USE

The bench top quickfreezing unit MTR is developed to provide an easy and reliable way to cool down your specimen while processing with your microtome. The cooling block cools down up to – 45 °C. Combined with the standard object clamp – which is supplied together with the MTR – you can be sure to have a significant lower temperature (relatively to ambient temperature) within your specimen.
The MTR provides a manual defrost function, in case the cooling block will be covered with ice, which could happen at extreme ambient humidity.

2. SYMBOLS

Dangers, warnings and cautions are marked by this symbol

Special instructions regarding the operation of the instrument are marked by this symbol

3. SAFETY NOTES

SLEE bench top quickfreezing units are provided with the following safety features:

	MTR
Self optimizing controller for temperature accuracy	●
Manual defrost	●

The institution which owns the unit and the persons working with the unit, servicing or repairing it have the responsibility for a hazard-free use.

The cooling block of the instrument is extremely cool during operation and can cause frostbites if touched directly.

The airing slots at the backside and the right side must never be covered and need minimum 20 cm distance to the wall or next object.

4. COMPONENTS

SLEE bench top quickfreezing units are provided with the following standard components:

	MTR
Standard object clamp with slot for cooling block	●
Allen key size 2 & 3	●
Operation instructions	●

5. SPECIFICATIONS

Dimensions [width x depth x height]	485 mm x 500 mm x 315 mm (depth with hose connection)
Hose Length	2000 mm (with connected cooling block)
Weight without accessories	30 kg
Cooling capacity	max. - 45 °C (- 49 °F)
Defrost Temperature	5 °C (41 °F)
Power Consumption	**230 V / 50 Hz device** 300 VA / ~ 1,5 A **115 V / 60 Hz device** 300 VA / ~ 3 A

6. UNPACKING AND INSTALLATION

6.1 UNPACKING THE INSTRUMENT

Remove the upper cover.

Remove the upper supporting foams.

Lift the instrument out of the wooden transportation case.

For repacking use the original cases. Keep the packing material.

Place the instrument onto the selected bench.

6.2 INSTALLATION

The site for installation should meet the following requirements:

- The unit should be positioned onto a plane, vibration-free surface.
- A free ventilation of fresh air behind the instrument should be guaranteed.
- The vicinity of the work area must be free of oil and chemical vapours.

6.3 ELECTRICAL POWER CONNECTION

Make sure that electric power is constant:

- This should be examined during installation of the unit by a competent person.
- Use a dedicated fuse for the unit.
- Before turning on the instrument, check if the voltage of the mains supply is identical with the name plate of the unit.

Connect the unit to the main supply and switch on with mains switch at the rear of the unit.

7. OPERATION OF THE MTR

7.1 PREPARATION

Before the cooling function can be used, the standard object clamp supplied with the MTR must be attached to the microtome with four countersunk screws ISO 10642 – M5 x 16, which are already mounted with the existing clamp of your device.

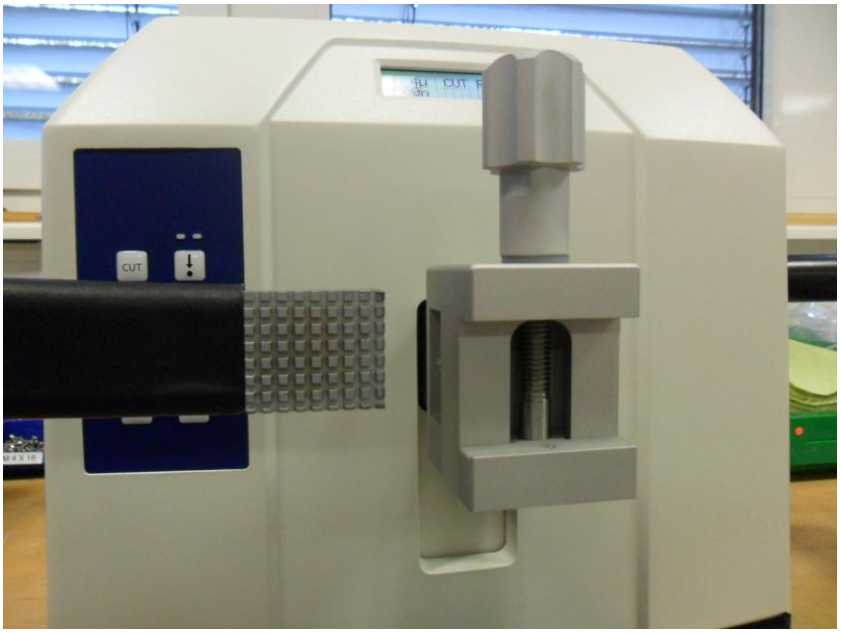

Figure 7-1: Assembly of cooling block - 1

Subsequently slightly loosen the two screws at the backside of the clamp (see picture below) with the supplied Allen key size 2).

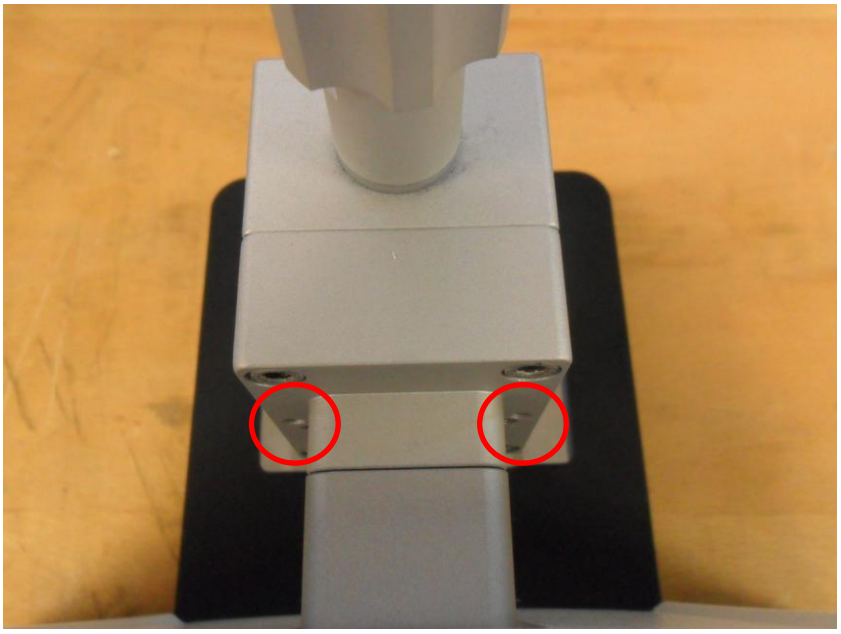

Figure 7-2: Assembly of cooling block - 2

7.2 ASSEMBLY OF THE COOLING BLOCK

Carefully insert the cooling block from the left side (see picture 7–1) into the object clamp. If you feel any resistance, loosen the screws some more to enlarge the guidance space in the clamp.
Insert the cooling block until the silver coloured block is completely covered by the silver parts of the clamp and hold the hose while screwing the two backside screws.
Your device is now ready for operation and should look like shown in picture 7–3.

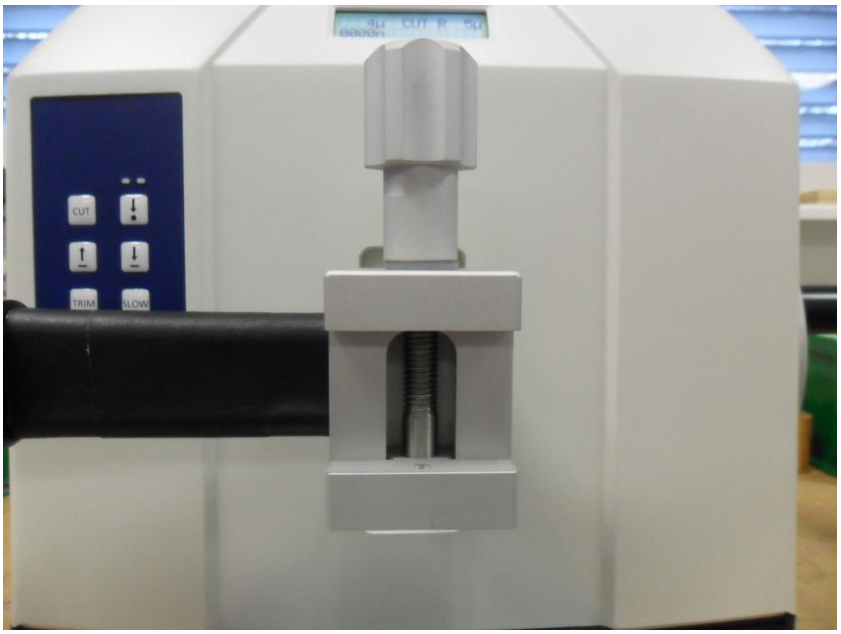

Figure 7-3: Microtome with assembled cooling block

Assure that the hose can move up and down freely.

7.3 PROGRAMMING THE MTR

The MTR has a central operating panel containing a display. The display shows two different temperatures (see picture 7–4) whereat the upper line states the actual temperature and the line below shoes the programmed temperature configured by the user.
The temperature of the cooling block is configurable be pressing the “arrow down” or “arrow up” buttons (as shown in picture 7–4)
The value of the temperature is displayed in degree Celsius (°C) by factory settings, but your authorized Slee technician can easily change to °F.

7.4 DEFROSTING THE COOLING BLOCK

Do not dip the cooling block into warm or hot liquids.

Depending on the configured temperature and the ambient conditions (air humidity) the cooling block will be covered with ice. The MTR has a defrost function which allows the user to actively melt the ice by pressing and holding the defrost key (see picture 7–4) The temperature for the defrost function is programmed to 5 °C (41 °F).

Figure 7–1: Central operating panel

8. MAINTENANCE

Besides regular cleaning, the instrument is basically maintenance-free.

For cleaning the units only use alcoholic media, not acetone or xylene. For the hood it is best to use a commercially available cleaner for plastics. The hood should not come in contact with alcoholic or other solvents.

Never spray or use cleaning medium directly onto operating foils.

Please take note of the safety aspects of the instrument.

Wear protective clothing and disposable gloves according to Good Laboratory Practices.

9. SERVICE

Internal components should only be serviced by technicians authorised by SLEE.

If technical service or spare parts are necessary, please contact your local SLEE Medical distributor. Please have the following information available:

- Complete contact details
- Type of instrument and serial number
- Place of instrument and name of user
- Purpose of service call
- Delivery date of the unit

If it is necessary to return the instrument, it must be cleaned and disinfected before delivery. It must be returned in its original packing.

If the instrument or parts thereof are sent back in a dirty or non-disinfected condition, SLEE reserves the right to return the parts to the debit of the customer.

10. Optional accessories

As the MTR bench top quickfreezing unit is supplied with the standard object clamp with the guidance space for the cooling block, all necessary tools and the operating instructions, there are no more accessories to be offered.

11. WARRANTY

SLEE Medical GmbH guarantees that the product delivered has been subjected to a comprehensive quality control procedure, and that the product is faultless and complies with all technical specifications and/or agreed characteristics warranted.

SLEE Medical GmbH guarantees that the instrument is manufactured under an ISO 9001 quality management system.

Unauthorized modification or repair by third party persons will void the warranty.

Only original SLEE spare parts must be used.

Guarantee claims can be put forward only if the instrument is used according to this manual and for the purpose described.

Mistakes and errors which occur because of improper use cannot be accepted.

12. DISPOSAL

The instrument or parts of the instrument must be disposed of according to existing local applicable regulations.

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